

# **EXHIBIT 17**

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

Case No. 11-1001-CON0419

In re Application of:

Sonos, Inc.

Serial No.: 16/389,906

Filing Date: April 19, 2019

Title: Systems and Methods for Networked  
Music Playback

Confirmation No.: 9117

Examiner: Jesse A. Elbin

Group Art Unit: 2655

**RESPONSE TO NON-FINAL OFFICE ACTION**  
**MAILED DECEMBER 6, 2019**

In response to the Non-Final Office Action mailed December 6, 2019, Applicant submits the following claim listing and remarks.

**Claim** begin at page 2.

**Remarks** begin at page 16.

Applicant believes that all fees required for the present response have been filed during the electronic filing process. Applicant authorizes the office to charge any underpayment or credit any overpayment to Deposit Account No. 506632, and to treat any filing in this matter that requires an extension of time as incorporating a request for the extension.

## **CLAIMS**

1. (Previously Presented) A computing device comprising:  
at least one processor;  
a non-transitory computer-readable medium; and  
program instructions stored on the non-transitory computer-readable medium that, when executed by the at least one processor, cause the computing device to perform functions comprising:

operating in a first mode in which the computing device is configured for playback of a remote playback queue provided by a cloud-based computing system associated with a cloud-based media service;

while operating in the first mode, displaying a representation of one or more playback devices in a media playback system that are each i) communicatively coupled to the computing device over a data network and ii) available to accept playback responsibility for the remote playback queue;

while displaying the representation of the one or more playback devices, receiving user input indicating a selection of at least one given playback device from the one or more playback devices;

based on receiving the user input, transmitting an instruction for the at least one given playback device to take over responsibility for playback of the remote playback queue from the computing device, wherein the instruction configures the at least one given playback device to (i) communicate with the cloud-based computing system in order to obtain data identifying a next one or more media items that are in the remote playback queue, (ii) use the obtained data to retrieve at least one media item in the remote

playback queue from the cloud-based media service; and (iii) play back the retrieved at least one media item;

detecting an indication that playback responsibility for the remote playback queue has been successfully transferred from the computing device to the at least one given playback device; and

after detecting the indication, transitioning from i) the first mode in which the computing device is configured for playback of the remote playback queue to ii) a second mode in which the computing device is configured to control the at least one given playback device's playback of the remote playback queue and the computing device is no longer configured for playback of the remote playback queue.

2. (Canceled)

3. (Canceled)

4. (Previously Presented) The computing device of claim 1, wherein the instruction comprises an instruction for the cloud-based computing system associated with the media service to provide the data identifying the next one or more media items to the given playback device for use in retrieving the at least one media item from the cloud-based computing system associated with the cloud-based media service.

5. (Previously Presented) The computing device of claim 1, wherein the instruction comprises an instruction for the cloud-based computing system associated with the cloud-based media service to provide the at least one media item to the given playback device.

6. (Previously Presented) The computing device of claim 1, wherein the representation of the one or more playback devices comprises at least one selectable indicator for a group of playback devices that includes the given playback device and one or more other playback devices that are to be configured for synchronous playback of the remote playback queue, and wherein the user input indicating the selection of at least one given playback device from the one or more playback devices comprises user input indicating a selection of the group of playback devices.

7. (Previously Presented) The computing device of claim 1, wherein operating in a first mode in which the computing device is configured for playback of the remote playback queue comprises operating in the first mode in which the computing device has received user input indicating a selection of the remote playback queue for playback by the computing device but the computing device has not yet begun playback of the remote playback queue.

8. (Previously Presented) The computing device of claim 1, further comprising program instructions stored on the non-transitory computer-readable medium that, when executed by the at least one processor, cause the computing device to perform functions comprising:

beginning to operate in the first mode after i) launching a media application associated with the cloud-based media service and ii) receiving user input indicating a selection of the remote playback queue.

9. (Previously Presented) The computing device of claim 1, wherein:

operating in the first mode further involves providing a control interface comprising one or more selectable control icons that are configured to control playback of the remote playback queue by the computing device;

transitioning from the first mode to the second mode further involves modifying the control interface such that the one or more selectable control icons are configured to control playback of the remote playback queue by the at least one playback device instead of the computing device.

10. (Previously Presented) The computing device of claim 9, further comprising program instructions stored on the non-transitory computer-readable medium that, when executed by the at least one processor, cause the computing device to perform functions comprising:

after transitioning to the second mode, receiving user input indicating a selection of a given control icon of the one or more selectable control icons, wherein the given control icon corresponds to a given transport control operation; and

based on receiving the user input indicating the selection of the given control icon, causing the corresponding transport control operation to be executed by the given playback device.

11. (Previously Presented) The computing device of claim 10, wherein the transport control operation comprises one of a play operation, a pause operation, a skip forward operation, or a skip back operation.

12. (Previously Presented) The computing device of claim 1, wherein the cloud-based computing system associated with the cloud-based media service includes one or more cloud servers.

13. (Canceled)

14. (Previously Presented) The computing device of claim 1, wherein displaying the representation of the one or more playback devices comprises:

displaying the representation of the one or more playback devices in response to receiving a selection of a displayed icon indicating that playback responsibility for the remote playback queue can be transferred.

15. (Previously Presented) A non-transitory computer-readable medium having stored thereon program instructions that, when executed by at least one processor, cause a computing device to perform functions comprising:

operating in a first mode in which the computing device is configured for playback of a remote playback queue provided by a cloud-based computing system associated with a cloud-based media service;

while operating in the first mode, displaying a representation of one or more playback devices in a media playback system that are each i) communicatively coupled to the computing device over a data network and ii) available to accept playback responsibility for the remote playback queue;

while displaying the representation of the one or more playback devices, receiving user input indicating a selection of at least one given playback device from the one or more playback devices;

based on receiving the user input, transmitting an instruction for the at least one given playback device to take over responsibility for playback of the remote playback queue from the computing device, wherein the instruction configures the at least one given playback device to (i) communicate with the cloud-based computing system in order to obtain data identifying a next one or more media items that are in the remote playback queue, (ii) use the obtained data to retrieve at least one media item in the remote playback queue from the cloud-based media service; and (iii) play back the retrieved at least one media item;

detecting an indication that playback responsibility for the remote playback queue has been successfully transferred from the computing device to the at least one given playback device; and

after detecting the indication, transitioning from i) the first mode in which the computing device is configured for playback of the remote playback queue to ii) a second mode in which the computing device is configured to control the at least one given playback device's playback of the remote playback queue and the computing device is no longer configured for playback of the remote playback queue.



16. (Canceled)

17. (Canceled)

18. (Previously Presented) The non-transitory computer-readable medium of claim 15, wherein the instruction comprises an instruction for the cloud-based computing system associated with the cloud-based media service to provide the data identifying the next one or more media items to the given playback device for use in obtaining the at least one media item from the cloud-based computing system associated with the cloud-based media service.

19. (Previously Presented) The non-transitory computer-readable medium of claim 15, wherein the instruction comprises an instruction for the cloud-based computing system associated with the media service to provide the at least one media item to the given playback device.

20. (Previously Presented) A method carried out by a computing device, the method comprising:

operating in a first mode in which the computing device is configured for playback of a remote playback queue provided by a cloud-based computing system associated with a cloud-based media service;

while operating in the first mode, displaying a representation of one or more playback devices in a media playback system that are each i) communicatively coupled to the computing

device over a data network and ii) available to accept playback responsibility for the remote playback queue;

while displaying the representation of the one or more playback devices, receiving user input indicating a selection of at least one given playback device from the one or more playback devices;

based on receiving the user input, transmitting an instruction for the at least one given playback device to take over responsibility for playback of the remote playback queue from the computing device, wherein the instruction configures the at least one given playback device to (i) communicate with the cloud-based computing system in order to obtain data identifying a next one or more media items that are in the remote playback queue, (ii) use the obtained data to retrieve at least one media item in the remote playback queue from the cloud-based media service; and (iii) play back the retrieved at least one media item;

detecting an indication that playback responsibility for the remote playback queue has been successfully transferred from the computing device to the at least one given playback device; and

after detecting the indication, transitioning from i) the first mode in which the computing device is configured for playback of the remote playback queue to ii) a second mode in which the computing device is configured to control the at least one given playback device's playback of the remote playback queue and the computing device is no longer configured for playback of the remote playback queue.

21. (Previously Presented) The computing device of claim 1, further comprising program instructions stored on the non-transitory computer-readable medium that, when executed by the at least one processor, cause the computing device to perform functions comprising:

before displaying the representation of the one or more playback devices, receiving an indication that the one or more playback devices in the media playback system are available to accept playback responsibility for the remote playback queue.

22. (Withdrawn) A zone player comprising:

a network interface that is configured to facilitate network communication, via one or more data networks, with (a) a client station installed with a media-playback application for a cloud-based media service and (b) a cloud-based computing system associated with the cloud-based media service;

at least one processor;

a tangible, non-transitory computer-readable medium; and

program instructions stored on the tangible, non-transitory computer-readable medium that are executable by the at least one processor such that the zone player is configured to:

while the client station is configured for playback of a remote playback queue provided by the cloud-based computing system, receive, via the network interface, an instruction to take over responsibility for playback of the remote playback queue from the client station; and

after receiving the instruction, (i) communicate with the cloud-based computing system in order to obtain data identifying a next one or more media items in the remote playback queue, (ii) use the obtained data to retrieve at least one media item in the remote

playback queue from the cloud-based media service, and (iii) play back the retrieved at least one media item.

23. (Withdrawn) The zone player of claim 22, wherein the instruction further comprises data identifying a first media item in the remote playback queue that the client station was configured to play back when sending the instruction, and wherein the zone player further comprises program instructions stored on the tangible, non-transitory computer-readable medium that are executable by the at least one processor such that the zone player is configured to, after receiving the instruction:

use the data identifying the first media item in the remote playback queue to retrieve the first media item from the cloud-based media service, and

play back the first media item before playing back any other retrieved media item in the remote playback queue.

24. (Withdrawn) The zone player of claim 22, wherein:

the data identifying the next one or more media items in the remote playback queue comprises a respective uniform resource identifier (URI) for each media item included in the next one or more media items.

25. (Withdrawn) The zone player of claim 24, further comprising program instructions stored on the tangible, non-transitory computer-readable medium that are executable by the at least one processor such that the zone player is configured to:

after obtaining the respective URI for each media item included in the next one or more media items, add the respective URI for each media item included in the next one or more media items to a local playback queue maintained by the zone player.

26. (Withdrawn) The zone player of claim 24, wherein the URI for the first media item was previously stored in a local playback queue maintained by the client station.

27. (Withdrawn) The zone player of claim 22, wherein the instruction to take over the playback responsibility from the client station for the remote playback queue is received by the zone player as a result of a user inputting a request into the client station to transfer the playback responsibility for the remote playback queue from the client station to the zone player.

28. (Withdrawn) The zone player of claim 22, further comprising program instructions stored on the tangible, non-transitory computer-readable medium that are executable by the at least one processor such that the zone player is configured to:

provide, via the network interface to the cloud-based computing system, an indication that the zone player has successfully taken over the playback responsibility for the remote playback queue.

29. (Withdrawn) The zone player of claim 22, wherein:

the instruction to take over the playback responsibility from the client station for the remote playback queue further comprises a play position at which to begin playing back the at least one media item; and

the program instructions stored on the tangible, non-transitory computer-readable medium that are executable by the at least one processor such that the zone player is configured to play back the retrieved at least one media item comprises program instructions stored on the tangible, non-transitory computer-readable medium that are executable by the at least one processor such that the zone player is configured to play back the retrieved at least one media item beginning at the play position.

30. (Withdrawn) The zone player of claim 22, further comprising program instructions stored on the tangible, non-transitory computer-readable medium that are executable by the at least one processor such that the zone player is configured to:

provide, via the network interface, an indication that the zone player is available to accept the playback responsibility for the remote playback queue.

31. (Withdrawn) The zone player of claim 22, wherein:

the instruction to take over the playback responsibility from the client station for the remote playback queue comprises an instruction for a group of two or more zone players that includes the zone player to take over the playback responsibility from the client station for the remote playback queue; and

the program instructions stored on the tangible, non-transitory computer-readable medium that are executable by the at least one processor such that the zone player is configured to play back the retrieved at least one media item comprise program instructions stored on the tangible, non-transitory computer-readable medium that are executable by the at least one processor such that the zone player is configured to play back the retrieved at least one media

item in synchrony with at least one other zone player included in the group of two or more zone players based on timing information for the retrieved at least one media item that is generated by the zone player.

32. (Withdrawn) The zone player of claim 22, wherein the client station is additionally installed with a dedicated controller application for the zone player, and wherein, after the instruction to take over the playback responsibility from the client station for the remote playback queue is received, the zone player is configured to receive instructions for controlling the zone player's playback of media items from the remote playback queue that are initiated by each of the media-playback application installed on the client station and the dedicated controller application installed on the client station.

33. (Withdrawn) The zone player of claim 22, further comprising program instructions stored on the tangible, non-transitory computer-readable medium that are executable by the at least one processor such that the zone player is configured to:

transmit, to the cloud-based computing system, an indication of a current point of the zone player's playback within the remote playback queue.

34. (Withdrawn) The zone player of claim 22, further comprising program instructions stored on the tangible, non-transitory computer-readable medium that are executable by the at least one processor such that the zone player is configured to:

receive, from the cloud-based computing system, an indication that a user has modified the remote playback queue in a manner that impacts the previously received data identifying the next one or more items in the remote playback queue.

35. (Withdrawn) The zone player of claim 22, wherein the instruction to take over the playback responsibility from the client station for the remote playback queue is received from one or both of the client station or the cloud-based computing system.



## **REMARKS**

### **1. Summary of the Office Action**

In the Non-Final Office action dated December 6, 2019, (“the Action”) the Examiner rejected claims 1, 4, 5, 7-12, 15, and 18-21 under 35 U.S.C. 103 as being unpatentable over US PG Pub 2010/0095332 (“Gran”) in view of US PG Pub 2002/0174269 (“Spurgat”). The Examiner also rejected claim 6 under 35 U.S.C. 103 as being unpatentable over Gran in view of Spurgat in view of US PG Pub 2010/0299639 (“Ramsay”). The Examiner also rejected claim 14 under 35 U.S.C. 103 as being unpatentable over Gran in view of Spurgat in view of US PG Pub 2007/0053514 (“Imai”). Finally, the Examiner indicated that claims 22-35 are subject to restriction as independent or distinct from the invention originally claimed and that claims 22-35 have been withdrawn.

### **2. Summary of Examiner Interview**

A telephonic examiner interview took place on March 4, 2020. Participants included Examiner Jesse Elbin and Applicant’s representative Brandon Kennedy. During the interview, the participants discussed the Action, the references cited in the Action, and Applicant’s currently presented claims. No agreement was reached. Applicant thanks the Examiner for his time in conducting the interview.

### **3. Status of the Claims**

Claims 1, 4-12, 14-15, and 18-21 are now pending, of which claims 1, 15, and 20 are independent and the remainder are dependent. Claims 22-35 are withdrawn.

#### 4. **Response to Restriction Requirement and Constructive Election of Claims**

Applicant does not concede Examiner's contention that the claims as submitted in the previous response were directed to two independent or distinct inventions, related as combination and subcombination. Nonetheless, Applicant acknowledges Examiner's position that claims 1, 4-12, 14, 15, 20, and 21 have been constructively elected, and Examiner's withdrawal of claims 22-35. Applicant reserves the right to request rejoinder of claims 22-35 in this application or to pursue those claims in a divisional or continuation application.

#### 5. **Response to Rejections under 35 U.S.C. § 103**

As noted above, the Examiner rejected independent claims 1, 15, and 20 under §103 as unpatentable over Gran in view of Spurgat. Applicant respectfully disagrees and submits that the combination of Gran and Spurgat does not teach each and every element of the independent claims. In particular, Applicant traverses the rejections under §103 on the grounds that the combination of Gran and Spurgat does not teach at least a computing device that, while being "configured for playback of a remote playback queue provided by a cloud-based computing system associated with a cloud-based media service," "transmit[s] an instruction for [a] given playback device to take over responsibility for playback of the remote playback queue from the computing device" where the instruction configures the given playback device to "(i) communicate with the cloud-based computing system in order to obtain data identifying a next one or more media items that are in the remote playback queue" (in combination with the other elements of independent claims 1, 15, and 20).

In the Action, the Examiner equated a UPnP device hosting the control element 100 in Gran to the computing device of Applicant's claims, and equated a media rendering device in Gran to the given playback device of Applicant's claims. *Action* at p. 4. At best, Gran describes that

“[t]he control element 100 may maintain rendering of the device queue . . . The control element 100 may monitor playback by the media rendering device associated with the device queue, may determine when the media rendering device has completed rendering of the multimedia content file and/or may instruct the media rendering device to initiate rendering of the next multimedia content file.” *Gran* at [0119]-[0120].

However, Applicant respectfully submits that this teaching in *Gran* does not amount to the control element 100 “transmitting an instruction for the at least one [media rendering device] to take over responsibility for playback of the remote playback queue from the computing device” as found in Applicant’s claims. Rather, within the UPnP framework that is generally discussed throughout *Gran*, “[t]he UPnP AV Control Point manages the device queue ***and must continuously direct the media rendering device,***” (*Gran* at [0014] (emphasis added)), including instructing the media rendering device to initiate rendering of each subsequent file in the device queue and/or providing the media rendering device with a URI identifying each subsequent file. *See, e.g., Gran* at para. [0174]. Further, *Gran* teaches that “If a UPnP AV Control Point loses connection to the home network, then the device queue which the control point user has established will cease to be maintained, and ***the media rendering device will have no instructions on how to continue rendering*** the multimedia content files located in the device queue.” *Gran* at [0015].

These teachings confirm that the media rendering device in *Gran* never “***take[s] over responsibility for playback of [a] remote playback queue***” from control element 100. Thus, at a minimum, the UPnP control element 100 in *Gran* does not “transmit[] an instruction for [a media rendering device] to take over responsibility for playback of the remote playback queue from the [control element 100]” – let alone transmit such an instruction that configures the media rendering device to “(i) communicate with the cloud-based computing system in order to obtain data

identifying a next one or more media items that are in the remote playback queue,” as recited in Applicant’s independent claims.

Because the combination of Gran and Spurgat does not teach every element of independent claims 1, 15, and 20, the cited combination does not render claims 1, 15, and 20 unpatentable. Consequently, Applicant requests withdrawal of the § 103 rejections of claims 1, 15, and 20 over the combination of Gran and Spurgat, and submits that claims 1, 15, and 20 should be allowed. Further, Applicant submits that dependent claims 4-12, 14, 18-19, and 21 should be allowed as well for at least the reason that they each depend from an allowable independent claim.

## **6. Conclusion**

For at least the foregoing reasons, Applicant submits that the claims are in condition for allowance. Applicant thus respectfully requests favorable reconsideration and allowance of the claims. Applicant does not acquiesce in any assertion by the Examiner that is not expressly addressed by these remarks. Should the Examiner wish to discuss this case, the Examiner is encouraged to call the undersigned at (312) 754-9315.

Respectfully submitted,

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Date: March 6, 2020

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